Amendment to the Specification:

Prior to examination, please amend the specification as follows.

Beginning on page 1, line 1, please amend the title:

~~OPTICAL ELEMENT, LASER BEAM SOURCE, AND 2-D IMAGE FORMING DEVICE~~ OPTICAL ELEMENT, LASER LIGHT SOURCE, AND TWO-DIMENSIONAL IMAGE FORMING APPARATUS

Insert a new paragraph beginning on page 1, line 2, as follows:

--CLAIM OF PRIORITY

This application claims priority under 35 USC 371 to International Application No. PCT/JP2004/018361, filed on December 9, 2004, which claims priority to Japanese Patent Application No. 2003-411442, filed on December 10, 2003, each of which is incorporated by reference in its entirety.--

Amend the paragraph beginning on page 14, line 5 as follows:

Description of Numerals

3 reflection film

10,10a,10b,10c,10d,~~20~~15,30,40,50,60 optical element

11,11a,11b,11c,11d,12,12a,12b,12c,12d,13,13a,13b,13c,13d,~~21~~16,~~22~~17,~~23~~18,31,32,33,Wg waveguide

21,22 optical coupling parts

~~21a~~16a,~~22~~17a,~~22~~17b,~~23~~18b inclined surface

~~24~~19a,~~24~~19b light passing region~~T~~s

41,51,61,Ld semiconductor laser

52 plano-convex lens

62 cylindrical lens

70 lens

72 liquid crystal panel

81 projector lens

82 screen

140,150,160,170 laser light source

200,270 lighting system

300 two-dimensional image forming apparatus

L1,L1a,L2,L2a,L3 laser light

Amend the paragraph beginning on page 17, line 10 as follows:

When a light is incident to the light incident surface of the first waveguide 11, the incident light transmits through the first waveguide 11 and the rectangular prism ~~2a~~21 to be incident to the second waveguide 12. The light incident to the second waveguide 12 transmits through the waveguide 12~~b~~ and *the* rectangular prism ~~2b~~22 to be incident to the third waveguide 13. The light incident to the third waveguide 13 is emitted from an end surface of the third waveguide 13.

Amend the paragraph beginning on page 19, line 3 as follows:

To the contrary, in the first embodiment of the present invention, first to third waveguides 11 to 13 are disposed overlapping, and these waveguides 11 to 13 are optically coupled so that the output light from the first waveguide is incident to the second waveguide and the output light from the second waveguide is incident to the third waveguide by using ~~reflection~~ prisms 21 and 22. Thereby, the total of the lengths of these three waveguides 11 to 13 become the wave guiding distance of the light required to make the cross-sectional light intensity

distribution uniform. Therefore, it is possible to shorten the lengths in the light transmission direction of the respective waveguides and to greatly shorten the length of the entire device.

Amend the paragraph beginning on page 26, line 25 as follows:

Here, the three waveguides 11b, 12b, 13b are arranged in their width directions, respectively, and the light emitting end surface of the waveguide 11b and the light incident surface of the waveguide 12b are positioned in the same plain, and the light emitting end surface of the waveguide 12b and the light incident surface of the waveguide 13b are positioned in the same plain. Further, a rectangular prism 21b which optically couples the waveguide ~~11~~12b and the waveguide 12b is disposed straddling the light emitting end surface of the waveguide 11b and the light incident side end surface of the waveguide 12b. Further, a rectangular prism 22b which optically couples the waveguide 11b and the waveguide 13b is disposed straddling the light emitting end surface of the waveguide 12b and the light incident side surface of the waveguide 13b.

Amend the paragraph beginning on page 29, line 11 as follows:

The optical element ~~20~~15 of this second embodiment is constituted by serially coupling the respective waveguides of the optical element 10 of the first embodiment, without using a prism.

Amend the paragraph beginning on page 29, line 14 as follows:

More particularly, the optical element ~~20~~15 shown in figure 5 has a first waveguide ~~21~~16 which has an end surface that is inclined by 45 degree with respect to the light propagation direction in the waveguide, a second waveguide ~~22~~17 which has both end surfaces that are respectively inclined by 45 degree with respect to the light propagation direction of the waveguide, and a third waveguide ~~23~~18 which has an end surface that is inclined by 45 degree with respect to the light propagation direction.

Amend the paragraph beginning on page 29, line 22 as follows:

Here, the inclined surface ~~21~~16a at an end side of the first waveguide ~~21~~16 is a reflection plain that reflects the light propagating in the waveguide to be reflected along the waveguide height direction. The inclined surface ~~22~~17b at an end side of the second waveguide ~~22~~17 is a reflection plain directing downwards that reflects the light that is incident along the waveguide height direction so as to make its advancing direction be the waveguide length direction, and the inclined surface ~~22~~17a at the other end side of the second waveguide ~~22~~17 is a reflection plain directing upwards that reflects the light propagating in the waveguide so as to make the same emit along the waveguide height direction. The inclined surface ~~23~~18b at an end side of the third waveguide ~~23~~18 is a reflection plain directing downwards that reflects the light incident along the waveguide height direction so as to make its advancing direction be the waveguide length direction.

Amend the paragraph beginning on page 30, line 13 as follows:

In this optical element ~~20~~15, the second waveguide ~~22~~17 is stacked on the first waveguide ~~21~~16 so that the light propagation directions in these waveguides are parallel to each other and that the upward directing reflection plain ~~21~~16a at an end side of the first waveguide ~~21~~16 and the downward directing reflection plain ~~22~~17b at the other end side of the second waveguide ~~22~~17 confront to each other. Further, the third waveguide ~~23~~18 is stacked on the second waveguide ~~22~~17 so that the light propagation directions in these waveguides are parallel to each other and that the upward directing reflection plain ~~22~~17a at an end side of the second waveguide ~~22~~17 and the downward directing reflection plain ~~23~~18b at the other end side of the third waveguide ~~23~~18 confront to each other. The first waveguide ~~21~~16 and the second waveguide ~~22~~17 disposed thereon, and the second waveguide ~~22~~17 and the third waveguide ~~23~~18 disposed thereon, are respectively adhered to each other at their confronting surfaces by such as adhesion.

Amend the paragraph beginning on page 31, line 4 as follows:

Here, by the upward directing reflection plain ~~21~~16a of the first waveguide ~~21~~16 and the downward directing reflection plain ~~22~~17b of the second waveguide ~~22~~17, the optical path coupling part which couples the first waveguide ~~21~~16 and the second waveguide ~~22~~17 is provided, and by the upward directing reflection surface ~~22~~17a of the second waveguide ~~22~~17 and the downward directing reflection surface ~~23~~18b of the third waveguide ~~23~~18, the optical path coupling part which couples the second waveguide ~~22~~17 and the third waveguide ~~23~~18 is provided.

Amend the paragraph beginning on page 31, line 13 as follows:

Here, at the upper and lower both side surfaces of the respective waveguides ~~21~~16, ~~22~~17, ~~23~~18 and the external surfaces of the optical coupling part, for example, a high reflection film such as a metal film comprising aluminum material is formed. Further, at the light coupling parts which couple the upper and lower waveguides, glass material constituting the two waveguides are adhered, and these adhesion plains constitute light passing regions ~~24~~19a and ~~24~~19b where high reflection films are not formed.

Amend the paragraph beginning on page 31, line 22 as follows:

The light incident to the light incident side end surface of the first waveguide ~~21~~16 propagates through the first waveguide ~~21~~16 and the optical coupling part, and is incident to the second waveguide ~~22~~17. The light incident to the second waveguide ~~22~~17 propagates through the second waveguide ~~22~~17 and the optical coupling part, and is incident to the third waveguide ~~23~~18. Then, the light incident to the third waveguide ~~23~~18 is emitted from the light emitting side end surface.

Amend the paragraph beginning on page 32, line 5 as follows:

In this second embodiment, the first to third waveguides ~~21~~16 to ~~23~~18 are disposed stacking with each other, and these waveguides ~~21~~16 to ~~23~~18 are coupled with each other by utilizing inclined surfaces which are formed by processing the end surfaces of the respective waveguides so that the light emitted from the first waveguide ~~21~~16 is incident to the second waveguide ~~22~~17 and the light emitted from the second waveguide ~~22~~17 is incident to the third waveguide ~~23~~18. Therefore, the total of the lengths of the three waveguides ~~21~~16 to ~~23~~18 become the light wave guiding distance that is required to make the cross-section intensity distribution uniform. Thus, it is possible to shorten the lengths of the respective waveguides in the light propagation direction as well as to shorten the length of the entire device to a great extent.